

Applicant : Anke Rattenhoff et al.
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REMARKS

Applicants have amended claim 8 and added new claim 20 to more particularly point out and more distinctly claim a pharmaceutical preparation that contains proNGF, a proprotein of neural growth factor, as the active ingredient. Claim 20 depends from amended claim 8 and can find its support from original claim 8.

Note that Applicants already withdrew claims 1-7 and 9-19 drawn to non-elected inventions when responding to the restriction requirement dated September 23, 2004.

Claims 8 and 20 are currently being examined. Reconsideration of the application, as amended, is respectfully requested in view of the remarks below.

Objection

The Examiner noted that, to claim priority based upon a previously filed application, "specific reference to the earlier filed application must be made in the instant application." See the Office Action, page 2, lines 9-11. At the Examiner's request, Applicants have corrected this deficiency.

The Examiner reminded Applicants of providing either a certified copy of EP 98119077.0 or an English translation thereof. See the Office Action, page 3, lines 23-25. Applicants will submit the requested copies as soon as they become available.

Rejection under 35 U.S.C. § 102(b)

The Examiner rejected claim 8 as being anticipated by Edwards et al., U.S. Patent 5,683,894 ("Edwards").

Claim 8, the only pending independent claim, is drawn to a pharmaceutical preparation containing proNGF as the active ingredient. Referring to page 9, lines 1-15 of the Specification, proNGF contains a proprotein sequence linked to the N terminus of a NGF sequence and flanked between the two sequences is a cleavage site recognized by serine proteases, e.g., NGF-gamma and trypsin. It is generally believed that proNGF is inactive and only becomes activated upon removal of the proprotein sequence. See Edwards, column 5,

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lines 3-7. Contrary to this conventional belief, Applicants found out that properly folded proNGF, obtained by denaturation and renaturation processes, is actually active as evidenced by its ability to promote neural cell survival. See Example 4(f) in the Specification.

According to the Examiner, proNGF “inherently is an active ingredient itself” as Edwards teaches “a pharmaceutical composition containing recombinant pro-NGF-beta solution ... (... Example 2) ‘for comparison with active NGF-beta’ ...” See the Office Action, page 4, lines 3-6.¹ Applicants respectfully disagree.

Edwards teaches in vitro expression of a proNGF protein in Example 2. It shows that this protein was degraded after being digested with either NGF-gamma or trypsin. See Examples 5C and 5D. Edwards et al. did not subject this degraded protein to any further activity assay as it was clearly not active. In other words, the proNGF protein described in Example 2 was not an active ingredient, as asserted by the Examiner. As a matter of fact, Edwards provides an actual example to demonstrate that undigested proNGF was inactive and “exhibited little to no activity” in promoting neural cell survival. See column 9, lines 9-11.

To complete the record, Applicants would like to bring to the Examiner's attention that Edwards teaches production of an active NGF protein by digesting an inactive proNGF protein prepared by in vivo expression (Example 4) with either NGF-gamma (Example 5A) or trypsin (Example 5B).

For the reasons set forth above, Applicants submit that Edwards does not teach using proNGF as an active ingredient, not to mention using it in a pharmaceutical preparation as required by claim 8. Thus, claim 8, covering proNGF, as an active ingredient, is not anticipated by Edwards. Neither is new claim 20, which depends from claim 8.

CONCLUSION

Based on the remarks set forth above, Applicants submit that the grounds for objection/rejection asserted by the Examiner have been successfully overcome, and that claims 8 and 20, as pending, define subject matter that is novel over the cited prior art. Early allowance of both claims 8 and 20 by the Examiner is respectfully solicited.

¹ “Evans et al” at page 4, line 3 is clearly a typographical error. It should read “Edwards et al” instead.

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Respectfully submitted,

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